

## CLAIMS

We claim:

1. A method for making a chemically inflatable gas bag using technical grade acetic acid, water, and sodium bicarbonate, comprising:
  - diluting said acetic acid with water;
  - providing an HDPE bag;
  - pouring said diluted acetic acid into said HDPE bag;
  - sealing said HDPE bag wherein said diluted acetic acid is contained;
  - providing a PVA bag that is modified so as not to hydrolyze under alkaline conditions;
  - putting said sodium bicarbonate in said PVA bag;
  - sealing said HDPE bag wherein said acid is contained;
  - providing a nylon/PE bag; and
  - placing said PVA soluble bag and said HDPE bag within said nylon/PE bag.
2. The method of claim 1, wherein said acetic acid is diluted with water to between about 8 and 30% v/v acetic acid.
3. The method of claim 1, wherein said acetic acid is diluted with water to between about 12 and 20% v/v acetic acid.
4. The method of claim 1, further comprising:
  - providing a bag that is substantially impervious to water and acetic acid with small holes therein, and
  - placing said HDPE bag within said bag with holes before placing said HDPE bag within said nylon/PE bag.

5. The method of claim 1, wherein said nylon/PE bag has a first side, a second side, a top side, a bottom side, a first side edge, a second side edge, and two bottom corners, said method further comprising:

folding the bottom corner of said first side diagonally inward;

folding the bottom corner of said second side diagonally outward;

folding said first side edge inwardly along a first line substantially parallel to said first side edge of said gas bag;

folding said second side edge outwardly along a second line substantially parallel to the first line;

folding said first side inwardly along a third line substantially parallel to said first line and between said first line and said second line; and

folding said second side outwardly along a fourth line substantially parallel to said second line and between said second line and said third line.